Listing of claims:

Claims 1-60 have been cancelled.

61. (currently amended) A method for treating bone loss in a mammal comprising administering to the mammal an expression vector comprising a nucleic acid encoding osteoprotegerin and expressing osteoprotegerin such that bone loss is reduced [having the activity of inhibiting bone resorption.

62. (previously presented) The method of Claim 61 wherein the nucleic acid sequence is selected from the group consisting of:

a) a nucleic acid encoding a polypeptide comprising the amino acid sequence from residues 1 to 401 or from resides 22 to 401 as shown in Figure 9C-9D (SEQ ID NO:124);

b) a nucleic acid encoding a polypeptide comprising a deletion of 1 to 216 amino acids residues from the carboxy terminus of the polypeptide as in (a); and

c) a nucleic acid which hybridizes under high stringency conditions of 5XSSC, 50% formamide and 42°C with the nucleic acid set forth in (a) and (b) wherein the hybridizing nucleic acid encodes a polypeptide having the activity of inhibiting bone resorption.

63. (previously presented) The method of Claim 62 wherein the nucleic acid encodes a polypeptide comprising residues 22-185, 22-189, 22-194, or 22-201 inclusive as shown in Figure 9C-9D (SEQ ID NO:124).

64. (previously presented) The method of Claim 62 wherein the nucleic acid further comprises an Fc region of human IgG.

65. (previously presented) The method of Claim 61 wherein the expression vector is a viral vector.

66. (previously presented) The method of Claim 61 wherein the expression vector further comprises a pharmaceutically acceptable adjuvant.

67. (previously presented) The method of Claim 61 wherein the bone loss is due to osteoporosis, Paget's disease, hypercalcemia, hyperparathyroidism, steroid-induced osteopenia, rheumatoid arthritis, osteomyelitis, osteolytic metastasis, or periodontal bone loss..

68. (cancelled) The method of Claim 61 wherein the bone loss is due to rheumatoid arthritis.

69. (currently amended) A method for reducing osteoclast activity in a mammal comprising administering to the mammal an expression vector comprising a nucleic acid encoding osteoprotegerin and expressing osteoprotegerin <u>such that osteoclast activity is reduced</u>.

70. (previously presented) The method of Claim 69 wherein the nucleic acid sequence is selected from the group consisting of:

a) a nucleic acid encoding a polypeptide comprising the amino acid sequence from residues 1 to 401 or from resides 22 to 401 as shown in Figure 9C-9D (SEQ ID NO:124);

b) a nucleic acid encoding a polypeptide comprising a deletion of 1 to 216 amino acids residues from the carboxy terminus of the polypeptide as in (a); and

c) a nucleic acid which hybridizes under high stringency conditions of 5XSSC, 50% formamide and 42°C with the nucleic acid set forth in (a) and (b) wherein the hybridizing nucleic acid encodes a polypeptide having the activity of reducing osteoclast activity.

71. (previously presented) The method of Claim 69 wherein the nucleic acid encodes a polypeptide comprising residues 22-185, 22-189, 22-194, or 22-201 inclusive as shown in Figure 9C-9D (SEQ ID NO:124).

72. (previously presented) The method of Claim 71 wherein the nucleic acid further comprises an Fc region of human IgG.

73. (previously presented) The method of Claim 69 wherein the expression vector is a viral vector.

74. (previously presented) The method of Claim 69 wherein the expression vector further comprises a pharmaceutically acceptable adjuvant.

75. (previously presented) The method of Claim 69 wherein the mammal has a loss of bone mass.

76. (previously presented) The method of Claim 75 wherein the bone loss is due to osteoporosis, Paget's disease, hypercalcemia, hyperparathyroidism, steroid-induced osteopenia, rheumaotid arthritis, osteomyelitis, osteolytic metastasis, or periodontal bone loss.